Appl. No. 10/695,084
Amdt. dated December 17, 2004
Reply to Office action of March 14, 2005

Docket No. 100827.0005US2 (45867-0117)

Remarks

Claim 20 was rejected under 35 USC 101 as claiming embracing multiple statutory classes of inventions, and under 35 USC 112. Although the Applicant does not agree that the rejections are valid, the Applicant has chosen to amend claim 20 in hopes of obtaining quicker allowance of the claim. The rejections of claim 20 are moot in light of the amendments to claim 20.

Claims 8-16 and 18-20 remain in this application. Claims 8, 11, 18, 19 and 20 are amended herein.

Claims 8-16 were rejected under 35 U.S.C. 102(a) as being anticipated by Andreiko et al. (US5533895, "Anderiko"), and under 35 U.S.C. 103(a) as being unpatentable over Jordan et al. (US6089868, "Jordon"). The Applicant respectfully disagrees as the cited references do not, taken individually or in combination, teach or suggest all of the recitations of any of the rejected claims.

The invention as claimed in claims 8-16 incorporates instructions that cause a machine to perform selection of archwires by comparing an obtained representation of a patient's internal arch curve with data on available archwires.

Andreiko discloses methods for designing appliances, the provision of custom appliances to patients, and provision of appliances to patients by placing patients in population groups and providing appliances associated with such population groups. Jordon discloses automated selection of orthodontic bands using data representative of one or more teeth, but does not disclose selection of archwires. Neither Jordon nor Andreika teach or suggest a systems that include machine readable instructions that, when executed by a machine, cause the machine to select an archwire for a patient based on the shape of the patient's jaw bone structure, in particular the patient's PIAC. Although both references disclose obtaining data that might initially include representations of a patient's PIAC, both references teach systems and/or methods that use such representations to obtain data relating to the patient's teeth, not the patient's PIAC. All subsequent operations utilize the data on the patient's teeth and not the patient's PIAC.

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More particularly, claim 8 recites: "An automated system for selecting an archwire for a patient comprising: a patient internal arch curve recorder adapted to obtain a representation of the patient's internal arch curve; data on available archwires; a machine readable medium containing instructions which, when executed by a machine, cause the machine to compare an obtained representation of a patient's internal arch curve with the data on available archwires and to identify an archwire based on any such comparison."

The Office Action asserts that Andreiko discloses "a system for a patient comprising a digital camera for scanning the teeth and therefore also the arch of a patient and a digital computer including data on a group of standardized archwires and a mechanism for selecting an archwire based upon comparison of the archwire data and the scanned data and ordering the archwire from the manufacturer."

After reviewing Andreiko, the Applicant agrees that the first portion of the assertion of the Office Action is valid. Andreiko does disclose "making a digital representation of each of the teeth of the patient, and preferably also of the shape of the patient's lower jaw bone". [Andreiko, Col. 8, Lines 26-29.] However, that digital representation is subsequently processed to provide simple models of the patient's teeth [Andreiko, Col. 8, Lines 31-33, and Fig. 2]. That computerized model is used to generate profiles for each tooth [Andreiko, Col. 8, Lines 40-55, and Figs. 2A-2D]. From the profiles, a line representing a crown long axis (CLA) is obtained for each tooth [Andreiko, Col. 9, lines 1-4], and the CLAs are used in the design of custom appliances [Andreiko, Col. 9, lines 30-35]. In some instances, the similarity of tooth profile shapes are used to assign a group classification. In all instances, characteristics of the patient's teeth, not the patients internal arch curve are used in categorizing and/or designing. As such, a representation of the patient's internal arch curve is not compared to data on available archwires. Thus, Andereiko does not teach a system comprising "a machine readable medium containing instructions which, when executed by a machine, cause the machine to compare an obtained representation of a patient's internal arch curve with the data on available archwires and to identify an archwire based on any such comparison", and thus does not anticipate claim 8 or any claim dependent on claim 8.

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The Office Action also asserts that claims 8-16 are not patentable over Jordon. However, as with Andreiko, Jordon does not teach, suggest, or motivate " a machine readable medium containing instructions which, when executed by a machine, cause the machine to compare an obtained representation of a patient's internal arch curve with the data on available archwires and to identify an archwire based on any such comparison". As with Andreiko, data representative of the patient's teeth, not the patient's inner arch curve, is used for selection. As Jordon does not teach or suggest all the recitations of claim 8, claim 8 and all the claims dependent on claim 8 are patentable over Jordon.

Newly added claims 18-20 are also patentable because the cited references do not teach, suggest, or motivate inclusion of instructions that cause a machine to use the PIAC in archwire selection.

Claim 10 recites in part: "the system further comprises an input mechanism adapted to accept a treatment diagnosis." Claim 11 recites in part: "instructions also cause the machine to utilize an input treatment diagnosis in identifying an archwire." Neither Andreiko nor Jordon teaches, suggests, or motivates a system having the claimed input mechanism, or having instructions that cause a machine to make use of an input treatment diagnosis in identifying an archwire. As such, claims 10 and 11 are patentable over the cited references.

Claim 12 recites in part: "the system comprises a communications mechanism adapted to communicate to an archwire supplier that the identified archwire is to be provided to a user of the system." Neither Andreiko nor Jordan teaches or suggest a system having the claimed communications mechanism for automatically ordering selected archwires. As such, claim 12 is patentable over the cited references.

It is believed that the case is now in condition for allowance, and an early notification of the same is requested.

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If the Examiner believes that a telephone interview will help further the prosecution of this case,

he is respectfully requested to contact the undersigned attorney at the listed telephone number.

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on June 17, 2005.
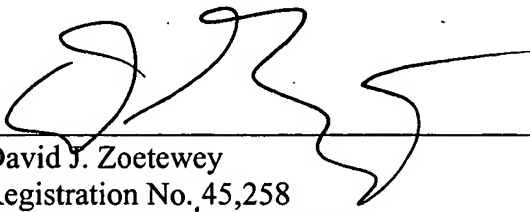
By: _____ Sharon Farnus

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Signature

Dated: June 17, 2005

Very truly yours,

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